

INFLUENCE OF SEASON ON MUTTON RETAIL PRICE IN TAMIL NADU

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ABSTRACT

In India fast growing sub-sector of agriculture is the livestock production. The present study made an attempt to analyse the seasonal influence on the retail price of mutton in Tamil Nadu. The data relevant for the study were collected from the Annual Statistical Abstract published by the Department of Statistics, Government of Tamil Nadu for the period from April 1975 to March 2018 and using the Consumer Price Index (CPI) formula the time value of money was calculated. The results revealed that significantly higher average retail price was noticed during winter summer season (Rs. 17.24 ± 0.16 ; 17.25 ± 0.13) than monsoon (Rs. 16.80 ± 0.11) and post monsoon (Rs. 16.69 ± 0.13). The result of current study gives an idea to the small ruminant farmers on the future strategies to fetch more income from animal rearing.

Key words: Mutton, Retail price, Season, Tamil Nadu

Livestock production has been growing faster than any other agricultural sub-sector in India. As per the official Livestock statistics of Department of Animal Husbandry, Government of Tamil Nadu, during 2016-17, the estimated meat production in Tamil Nadu state was 5,72,939 tonnes. Beef (cattle); cara beef (buffalo); mutton (sheep); chevon (goat); pork (pig) and poultry meat production were 43,242; 2,569; 45,256; 52,236; 2,104 and 4,27,532 tonnes respectively during 2016-17. Meat production has grown at more than 173% during the period 2006-07 to 2017-18 in Tamil Nadu. Sheep and goat are mostly

reared by small and nomadic farmers with a good cost benefit ratio. Tamil Nadu is witnessing an increasing trend in the number of animals slaughtered during the last 5 years by 31.9% increase in the number of sheep, 22.25% in goats and 19.53% increase in poultry slaughtered since 2012-13. This has resulted in an increase of 11.9, 10.6 and 21.7% in sheep, goat and poultry meat production respectively.

Many factors are influencing on meat consumption such as climate, geography, religion, food culture, dietary habits, price, income, nutritional value, flavor, safety, eating quality, the convenience of purchase and perception towards processed meat (Wu and Xiao, 2013; Devi *et al.*, 2014; Liang *et*

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al., 2014; Zhang *et al.*, 2014; Kiran *et al.*, 2018). Meat consumption in India is very low and is dominated by goat or sheep meat (Gandhi and Zhou, 2010). Gandhi and Zhou (2010) also stated that the substantially higher income elasticities of demand for livestock products as compared to other foods lead to an expenditure increase of 1.67% in the rural areas and 1.04% in urban areas with every one per cent increase in income.

Studies on growth patterns deal largely with issues related to population. Very few studies are available for livestock sector which estimated price changes at the all-India level and state level. Hence in this context, it is essential to examine the livestock product price and the factors affecting sales price of livestock products. The present study examines these questions by assessing how seasons affected the sale price of mutton in Tamil Nadu.

Source of data

Secondary data relevant for the study were collected from the Annual Statistical Abstract published by the Department of Statistics, Government of Tamil Nadu and utilized for the present study.

Period of study

The month wise data on retail price of mutton were collected over the period 1975-76 to 2017-2018 from Annual Statistical Abstract published by the Department of Statistics, Government of Tamil Nadu.

Method of computation of retail price

The retail price data were collected for different periods. The value of money that is

available at the present time is worth more than the same amount in the future, due to its potential earning capacity. The prices of goods and services across an economy are increasing due to inflation. The opposite of inflation is deflation, when prices become lower across a range of goods and services. An inflation calculator shows the value of the same sum of money at different times in the past and the future. The time value of money (TVM) is a useful tool to understand the worth of money in relation to time. There are several ways to calculate the time value of money and in this study using the Consumer Price Index (CPI) formula the time value of money was calculated. CPI reflects the cost of living conditions of consumers for which it is constructed and based on retail prices of commodities generally consumed by the group. For our present study if the CPI for both start and end time is known, the following formula is used:

$$\text{Final value} = \text{Initial value} \times \frac{\text{CPI final}}{\text{CPI initial}}$$

Statistical analysis

The real value of mutton retail price using the Consumer Price Index (CPI) formula and the time value of money was calculated. This standardized real money values were used for analysis and one way ANOVA was used to analyze the effect of season on retail price of mutton and chevon.

In this study, the CPI in April 1975 was 5.43 and in March 2018 was 109.79. The inflation rate in India between April 1975 and March 2018 was 1,920.38%, which translates into a total increase of Rs 1,920.38 (<https://www.inflation.eu/>

inflation-rates/india/historic-inflation/cpi-inflation-india-1975.aspx). In the study, the

CPI in April 1975 was 5.43 and in March 2018 was 109.79. Therefore,

$$Final\ value = Initial\ value \times \frac{CPI\ final}{CPI\ initial} = 100 \times \frac{109.79}{5.43} = 2,020.38$$

This means that **100 rupees in April 1975 are equivalent to 2,020.38 rupees in March 2018.**

Season-wise retail price of mutton and chevon are presented in Table 1. A significant effect of season ($P < 0.05$) was observed. A significantly higher retail price was noticed during winter and summer seasons ($Rs. 17.24 \pm 0.16$; 17.25 ± 0.13) than monsoon ($Rs. 16.80 \pm 0.11$) and post monsoon ($Rs. 16.69 \pm 0.13$) season. The sale price observed in this study was maximum ($Rs. 30.93$) in summer and lowest ($Rs. 6.07$) during monsoon season.

Post monsoon, a significantly lower sale price was observed and increased during winter and summer season. After summer, the price has significantly decreased in monsoon season. Pandian *et al.*, (2014) analysed the seasonal influence on mutton price index in the major cities of Tamil Nadu and observed a minimum mutton price index during the month of July in Chennai and Trichy and September and December in Madurai and Coimbatore respectively. They also found highest mutton price index during the month of January in Madurai and Trichy and December and March in Chennai and Coimbatore respectively and these results are in accordance with the findings of this study.

Table 1. Season wise real value of mutton and chevon price based on Consumer Price Index (CPI) (Based on April 1975)

Season	N	Mean \pm Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
			Lower Bound	Upper Bound		
Winter	770	17.24 ^c \pm 0.16	16.93	17.55	9.38	30.59
Summer	1155	17.25 ^c \pm 0.13	17.00	17.51	8.94	30.93
Monsoon	1540	16.80 ^b \pm 0.11	16.57	17.02	6.07	30.26
Post monsoon	1155	16.69 ^a \pm 0.13	16.44	16.94	8.45	30.48
Total	4620	16.96 \pm 0.07	16.83	17.09	6.07	30.93

N – Number of observations

In India, traditionally people eat foods mostly based on grains and vegetables, and consume limited amounts of meats and meat products. Due to introduction of western culture and economic growth, food consumption habits have changed in India. Many factors like socioeconomic, demographic factors, seasons *etc.* are affecting the demand for meat. The result of this study showed that season has significant effect on retail price of mutton. The result of current study gives an idea to the farmers on the mutton production strategies to get more return from small ruminant rearing.

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